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World Intellectual Property Organization (WIPO) - Geneva, Switzerland
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PCT/GB2005/001757



INVESTOR IN PEOPLE

The Patent Office
Concept House
Cardiff Road
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NP10 8QQ

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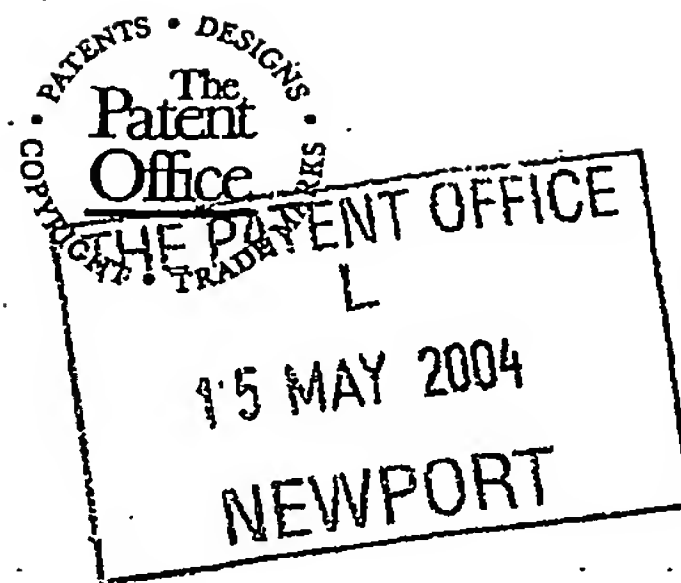
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The Patent Office

Cardiff Road
Newport
South Wales
NP10 8QQ

1. Your reference 0400170

2. Patent application number
(The Patent Office will fill in this part)

15 MAY 2004

0410923.7

3. Full name, address and postcode of the or of each applicant (*underline all surnames*)

SMITHS GROUP PLC
765 FINCHLEY ROAD
LONDON
NW11 8DS

Patents ADP number (*if you know it*)

8032310001

If the applicant is a corporate body, give the country/state of its incorporation

GB

4. Title of the invention

PACKAGING AND ASSEMBLIES

5. Name of your agent (*if you have one*)

J. M. FLINT

"Address for service" in the United Kingdom to which all correspondence should be sent (*including the postcode*)

765 FINCHLEY ROAD
LONDON
NW11 8DS

Patents ADP number (*if you know it*)

1063304001

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (*if you know it*) the or each application number

Country

Priority application number
(*if you know it*)

Date of filing
(*day / month / year*)

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application

Date of filing
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8. Is a statement of inventorship and of right to grant of a patent required in support of this request? (*Answer 'Yes' if:*

YES

- a) any applicant named in part 3 is not an inventor, or
 - b) there is an inventor who is not named as an applicant, or
 - c) any named applicant is a corporate body.
- See note (d))

Patents Form 1/77

9. Enter the number of sheets for any of the following items you are filing with this form. Do not count copies of the same document

Continuation sheets of this form

Description

6

Claim(s)

DL

Abstract

Drawing(s)

3+3

10. If you are also filing any of the following, state how many against each item.

Priority documents

Translations of priority documents

Statement of inventorship and right to grant of a patent (Patents Form 7/77)

Request for preliminary examination and search (Patents Form 9/77)

Request for substantive examination (Patents Form 10/77)

Any other documents (please specify)

11.

I/We request the grant of a patent on the basis of this application.

Signature



Date

14 MAY 2004

12. Name and daytime telephone number of person to contact in the United Kingdom

J.M. FLINT

020 8457 8220

Warning

After an application for a patent has been filed, the Comptroller of the Patent Office will consider whether publication or communication of the invention should be prohibited or restricted under Section 22 of the Patents Act 1977. You will be informed if it is necessary to prohibit or restrict your invention in this way. Furthermore, if you live in the United Kingdom, Section 23 of the Patents Act 1977 stops you from applying for a patent abroad without first getting written permission from the Patent Office unless an application has been filed at least 6 weeks beforehand in the United Kingdom for a patent for the same invention and either no direction prohibiting publication or communication has been given, or any such direction has been revoked.

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- b) Write your answers in capital letters using black ink or you may type them.
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PACKAGING AND ASSEMBLIES

This invention relates to packaging and assemblies.

The ICSI (intracytoplasmic sperm injection) procedure involves injecting a single sperm into an egg using a fine pipette. ICSI pipettes take the form of a glass tube one end of which is tapered to a very fine tip suitable for injecting into the egg. These pipettes are very delicate and are easily broken during transport and handling. The pipettes are packed before use in a protective container but it can be difficult to extract the pipette without damage. Also, it may be necessary to handle the pipettes excessively in order to remove them from the packaging, which is undesirable.

There are also other devices that are difficult to transport and handle because of their delicate nature.

It is an object of the present invention to provide an alternative form of packaging and an assembly of a device and packaging.

According to one aspect of the present invention there is provided packaging for an elongate device including a base member, a slider slidable relative to the base member, the slider being configured to receive and support the elongate device and being movable between a first position where both ends of the device are contained within the length of the packaging and a second position where one end of the device projects beyond one end of the base member.

The slider may have a raised grip portion towards one end located above the device by which the slider can be displaced from the first to the second position. The base preferably includes a portion extending above the device, which may be a lens, for magnifying a part of the device, such as an end.

According to another aspect of the present invention there is provided packaging for an elongate device including a base member, a slider slidable relative to the base member, the slider being configured to receive and support said device and the packaging including viewing means for enabling viewing of the device.

The viewing means is preferably magnifying means such as a lens. The lens is preferably provided by a part of the base member.

According to a further aspect of the invention there is provided an assembly of a device and packaging according to the above one or other aspect of the invention.

The device is preferably a glass tube, such as an ICSI pipette.

An assembly of an ICSI pipette in packaging, according to the present invention, will now be described, by way of example, with reference to the accompanying drawings, in which:

- Figure 1 is a perspective view of the assembly with the packaging in its stored position;
- Figure 2 is a perspective view of the two components of the packaging separated from one another;
- Figure 3 is a plan view of the assembly without the pipette;
- Figure 4 is an end view of the rear of the assembly without the pipette along the arrow IV of Figure 3;
- Figure 5 is a side elevation view of the assembly without the pipette;
- Figure 6 is an end view of the forward end of the assembly along the line VI of Figure 3;
- Figure 7 is a plan view of the base;
- Figure 8 is a plan view of the slider; and
- Figure 9 is a perspective view of the assembly with the slider in its forward position.

The packaging 1 consists of two components namely a base 10 and a slider 20, and forms an assembly with a conventional glass ICSI pipette 50 mounted on the slider. The assembly would normally also include an outer protective envelope (not shown) to maintain sterility and which is removed before use.

The base 10 is a single-piece, integral moulding of a hard, optically-transparent plastics material, such as MABS and has a generally elongate rectangular shape comprising a rear portion 11 and a forward portion 12 separated from one another by a waist region 13. The rear portion 11 has a curved peripheral wall 14 extending along both sides and the rear end of a base plate 15. The wall 14 is also curved in section to provide a concave inner surface and a convex outer surface. The rear part of the wall 14 supports a rod 16 projecting forwardly axially midway along the base 10 and raised above an opening 17 in the base plate 15. The rod 16 is bi-convex in section to form an elongate magnifying lens and terminates just short of the forward end of the wall 14. Two short L-shape channel members 18 project upwardly from the base plate 15 at opposite sides, between the forward end of the wall 14 and the waist region 13. The forward portion 12 has two longer channel members 19 extending along opposite sides and aligned with the rear channel members 18.

The slider 20 is also a single piece integral moulding of a plastics material, such as stabilised polypropylene, and is coloured for identification purposes. The slider 20 comprises a rear portion 21 and a forward portion 22 separated from one another by a waist region 23. The rear portion 21 comprises a flat plate 24 having two rails 25 extending along opposite sides, which are shaped to slide within the rear channel members 18. At its rear end, the rear portion 21 has an upwardly-extending thumb grip bridge 26 of inverted U shape. The two

uprights 27 of the grip 26 extend up between the wall 14 and the lens 16, with its top platform 28 extending horizontally over the lens. A support and retaining member or clip 29 projects from the upper surface of the slider 20 midway across its width and just rearwardly of the waist region 23. The clip 29 takes the form of two ribs 30 extending parallel to the slider 20 and closely spaced from one another to form a recess 31 in which the pipette 50 is received. The upper end of each rib 30 is formed with a shallow lip 32 projecting towards one another so that the recess 31 is slightly narrower at its upper end. A window 33 opens through the slider 20 between the ribs 30 and the grip 26. Similarly, the forward portion 22 has a flat plate 34 with two side rails 35, which slide within the channel members 19 at the forward end of the base 10. The forward portion 22 also has a clip 36 provided by a pair of ribs 37 with intumed lips 38 aligned with the clip 29. A window 39 opens through the slider 20 to the rear of the clip 36.

The pipette 50 is in the form of a glass tube about 57 mm long with an external diameter at its rear end 51 of about 1 mm and an external diameter at its forward end 52 of about 7 micron. The rear end 51 of the pipette 50 is clipped into the clip 36 at the forward end of the slider 20, the other clip 29 receiving the pipette towards its forward end but before it reduces in diameter. The forward end 52 of the pipette 50 extends beneath the lens 16 and terminates substantially level with the forward edge of the grip bridge 26 so that this does not obscure viewing of the tip of the pipette. In this way, the delicate forward end 52 of the pipette 50 is protected by the lens 16 from contact when the slider 20 is in its stowed, first position and the lens enables the tip of the pipette to be viewed in a magnified form so that the user can confirm that it is undamaged. In this stowed position, both the rear end 51 and the forward end 52 of the pipette 50 are contained within the length of the packaging

When the user wishes to remove the pipette 50 from its packaging, he grips the grip bridge 26 with his thumb and pushes it forwardly so that the slider 20 moves forwardly relatively to the base 10 with the rails 25 and 35 sliding in the channel members 18 and 19. When the slider 20 has been fully displaced to its second, forward position, as shown in Figure 9, the forward end 22 of the slider lies level with the forward end of the base 10. In this position, the forward end 52 of the pipette 50 is located forwardly of the end of the lens 16 and the rear end 51 of the pipette projects beyond the forward end of the base 10. The user can now grip the pipette 50 by its rear end 51 and angle it upwardly slightly to pull it out of the clips 29 and 36 so that it can be connected to a suitable device for supplying the sperm to the pipette.

The packaging provides a high degree of protection to the pipette while the sliding arrangement enables the pipette to be removed easily from the packaging with a low risk of damage. The lens is useful in enabling the pipette to be checked before removal so that an alternative pipette can be provided if need be. The colour of the slider can be selected to enable coding of different types of pipette or to enable pipette packaging to be coded for particular patients.

It will be appreciated that the packaging may be suitable for other elongate devices and is not limited to ICSI pipettes.

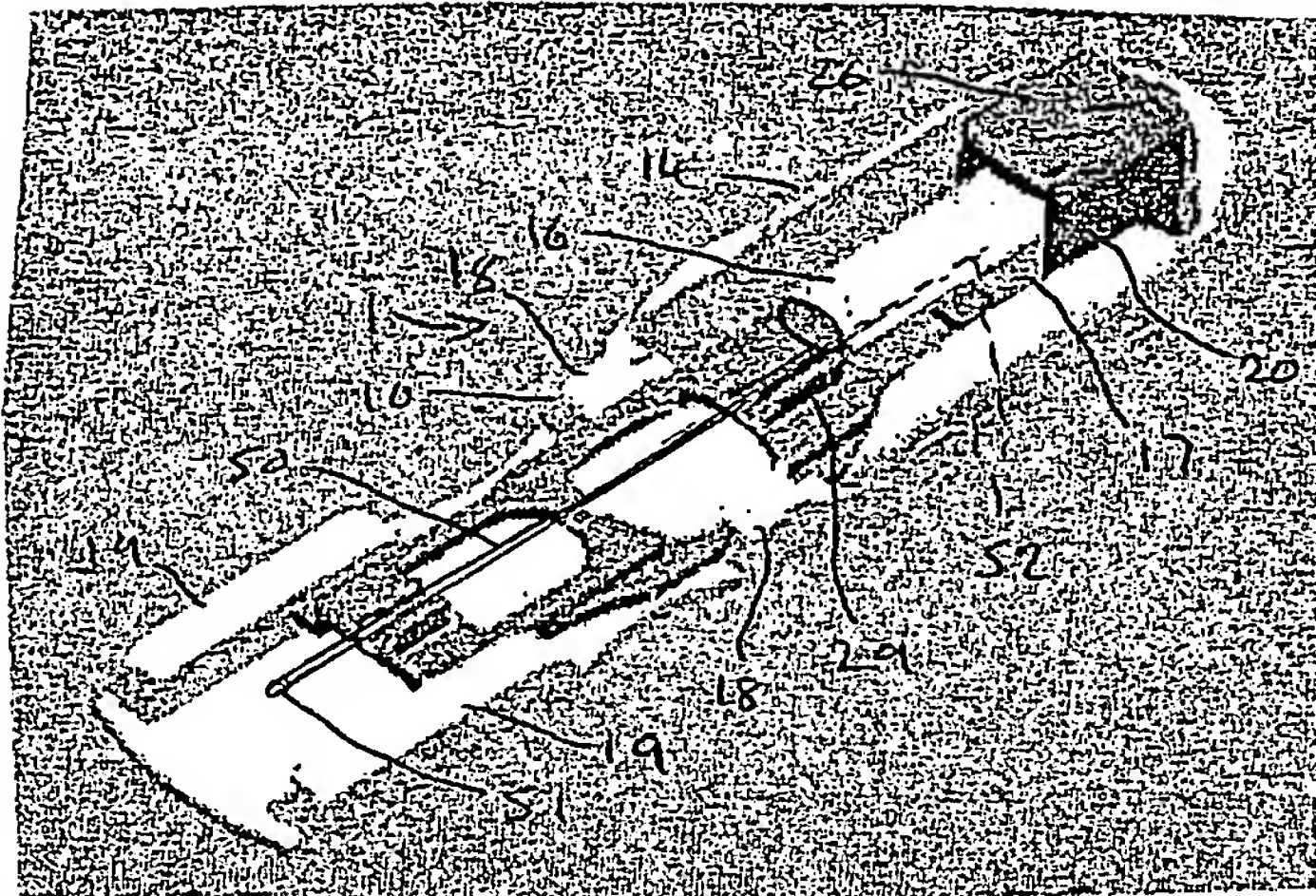


FIG. 1

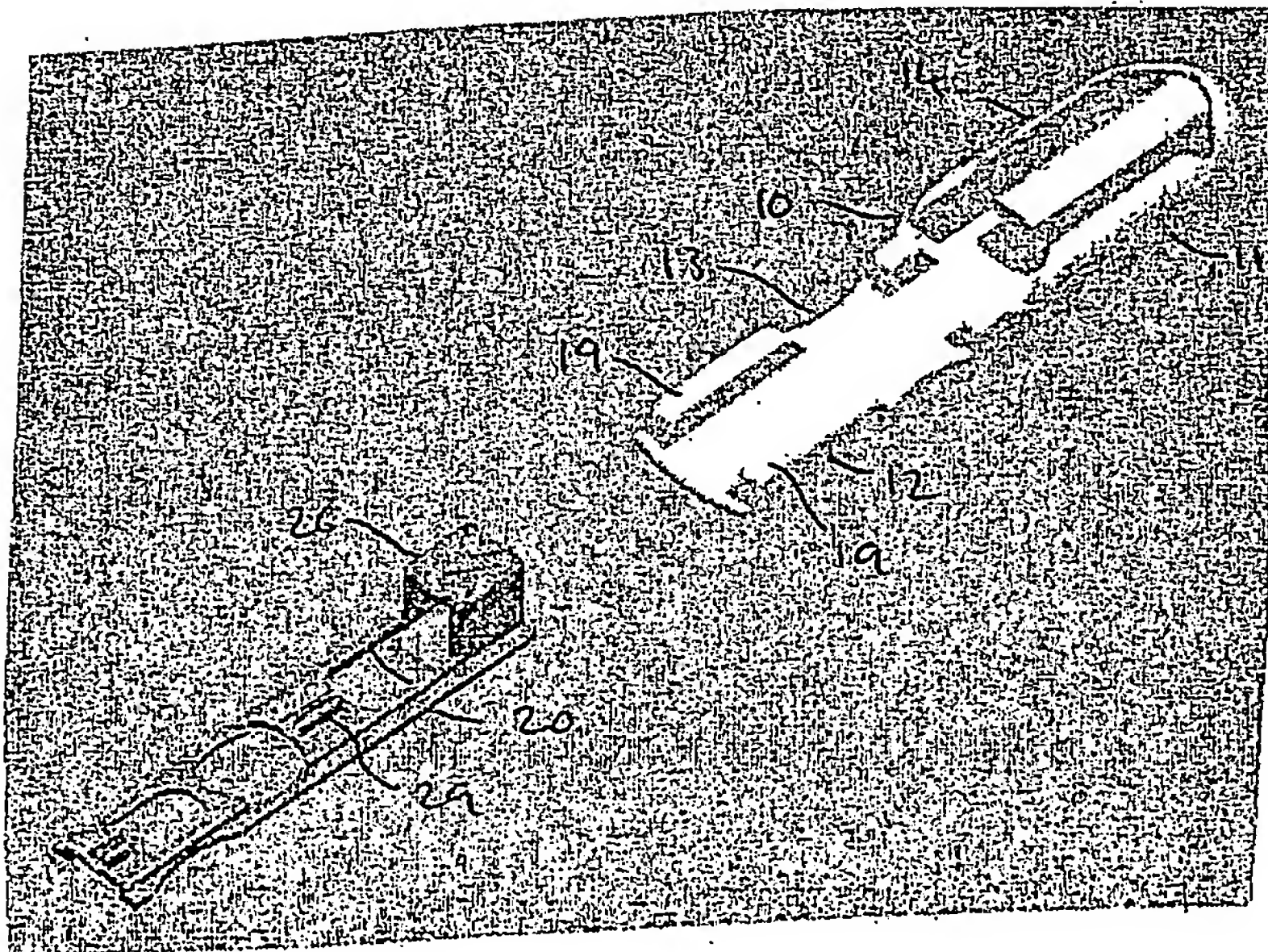


FIG. 2 .

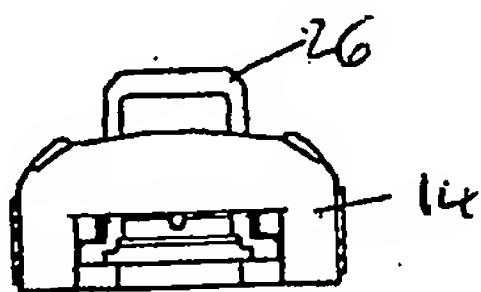
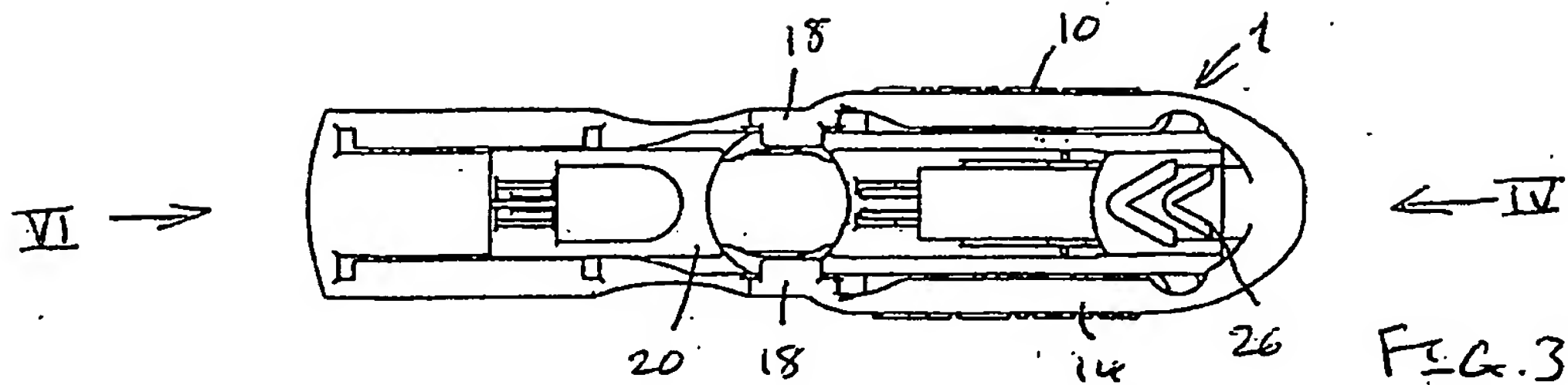


FIG. 4

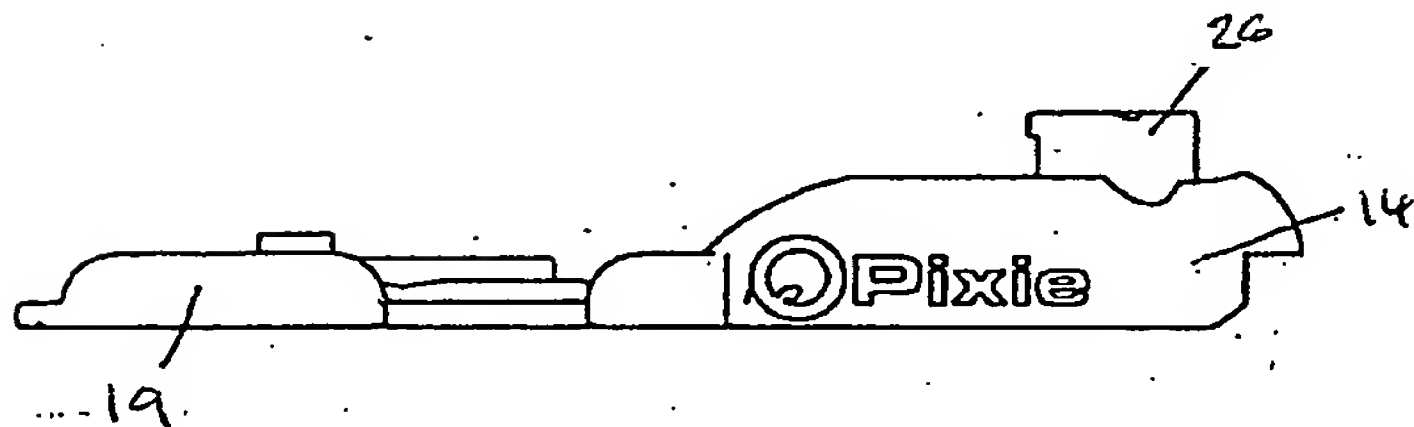


FIG. 5

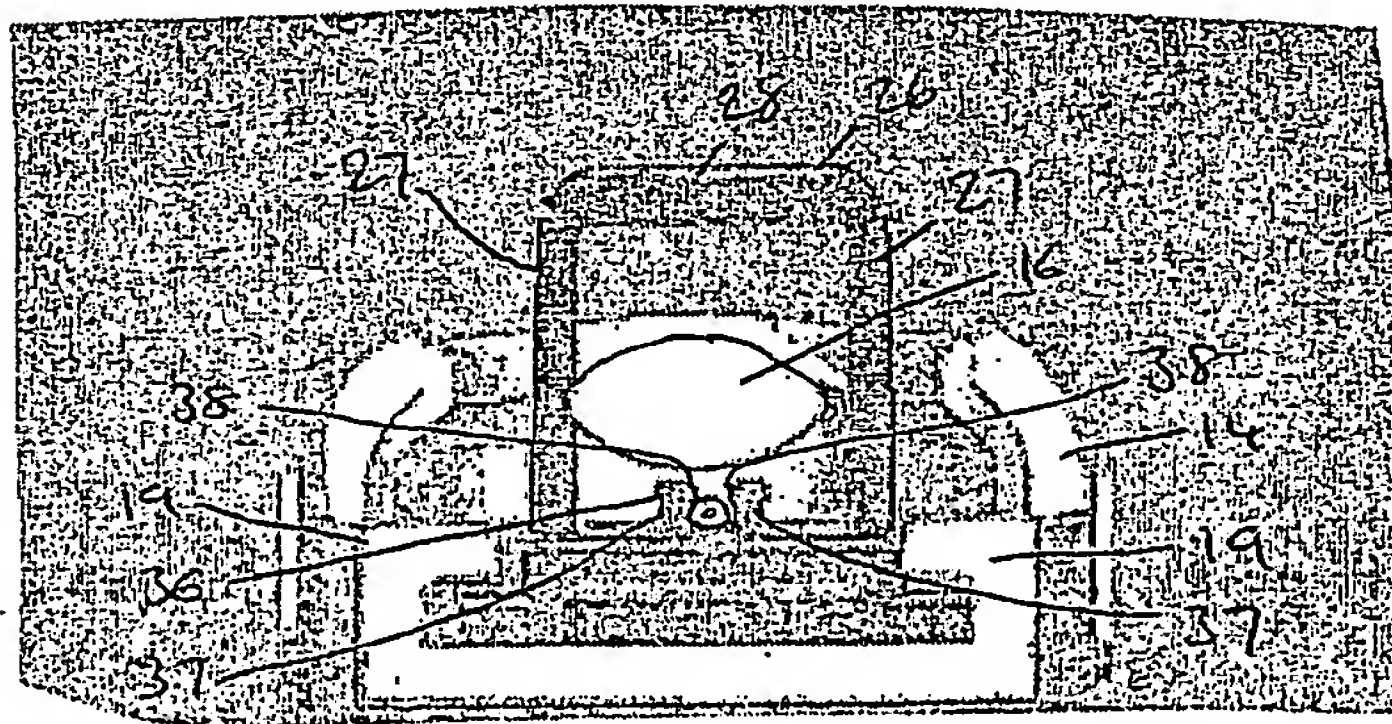


FIG. 6

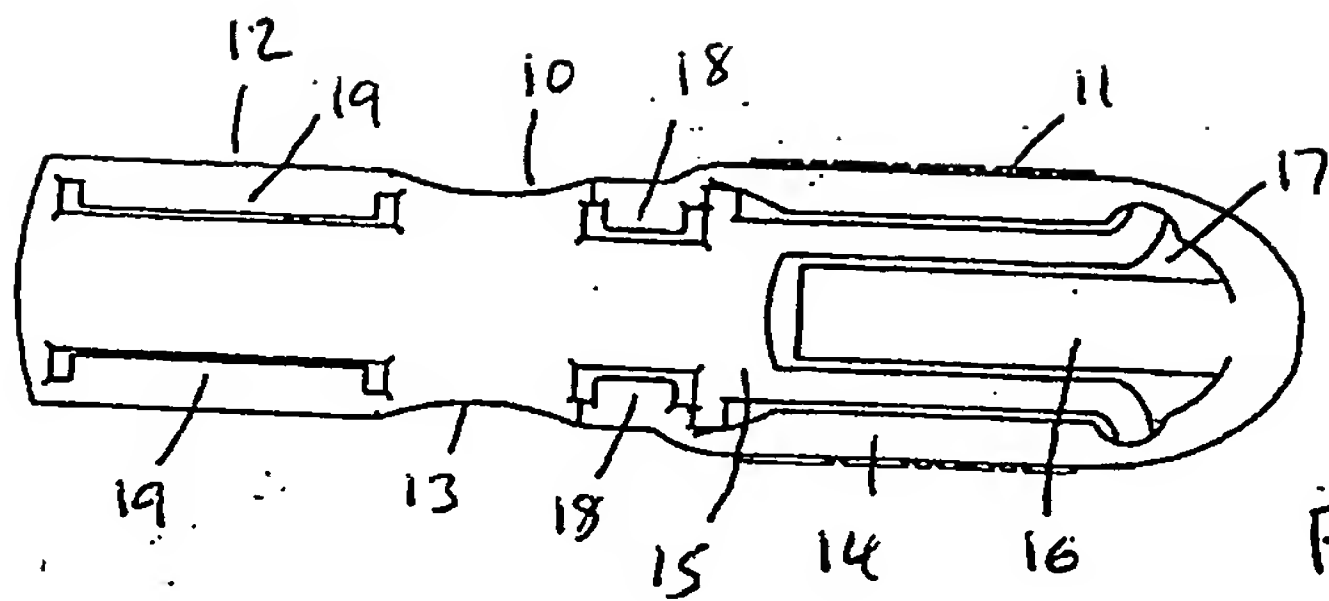


FIG. 7

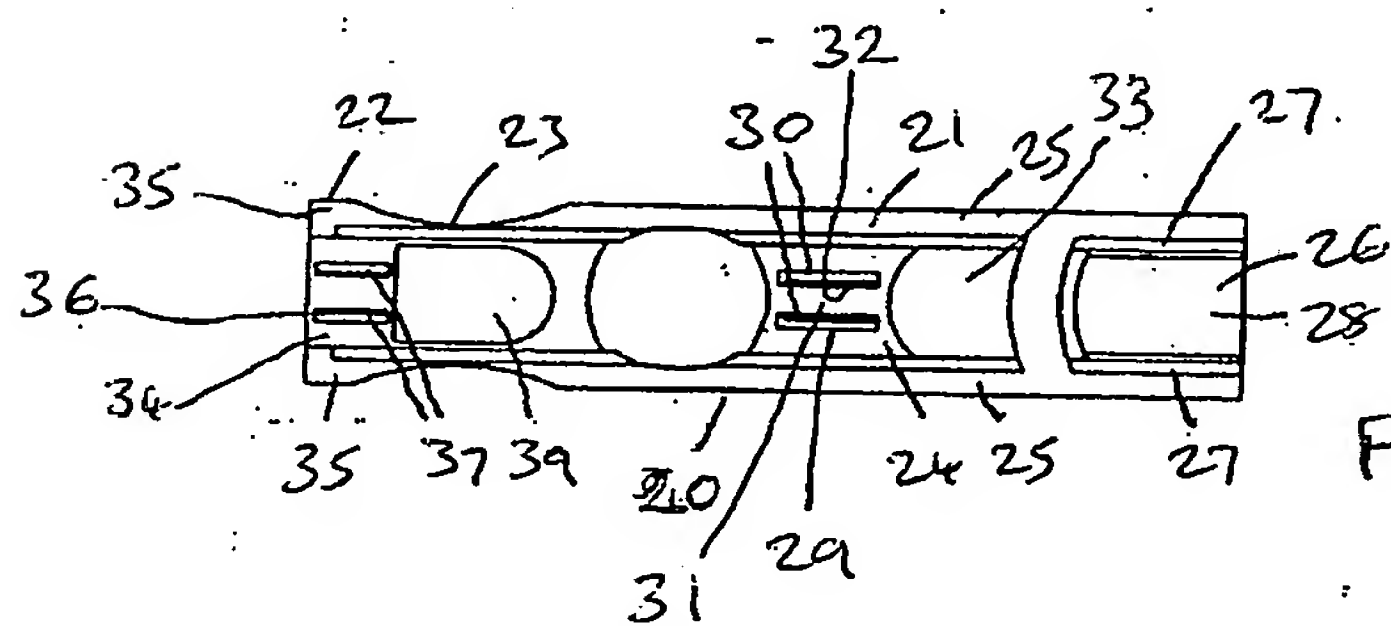


FIG. 8

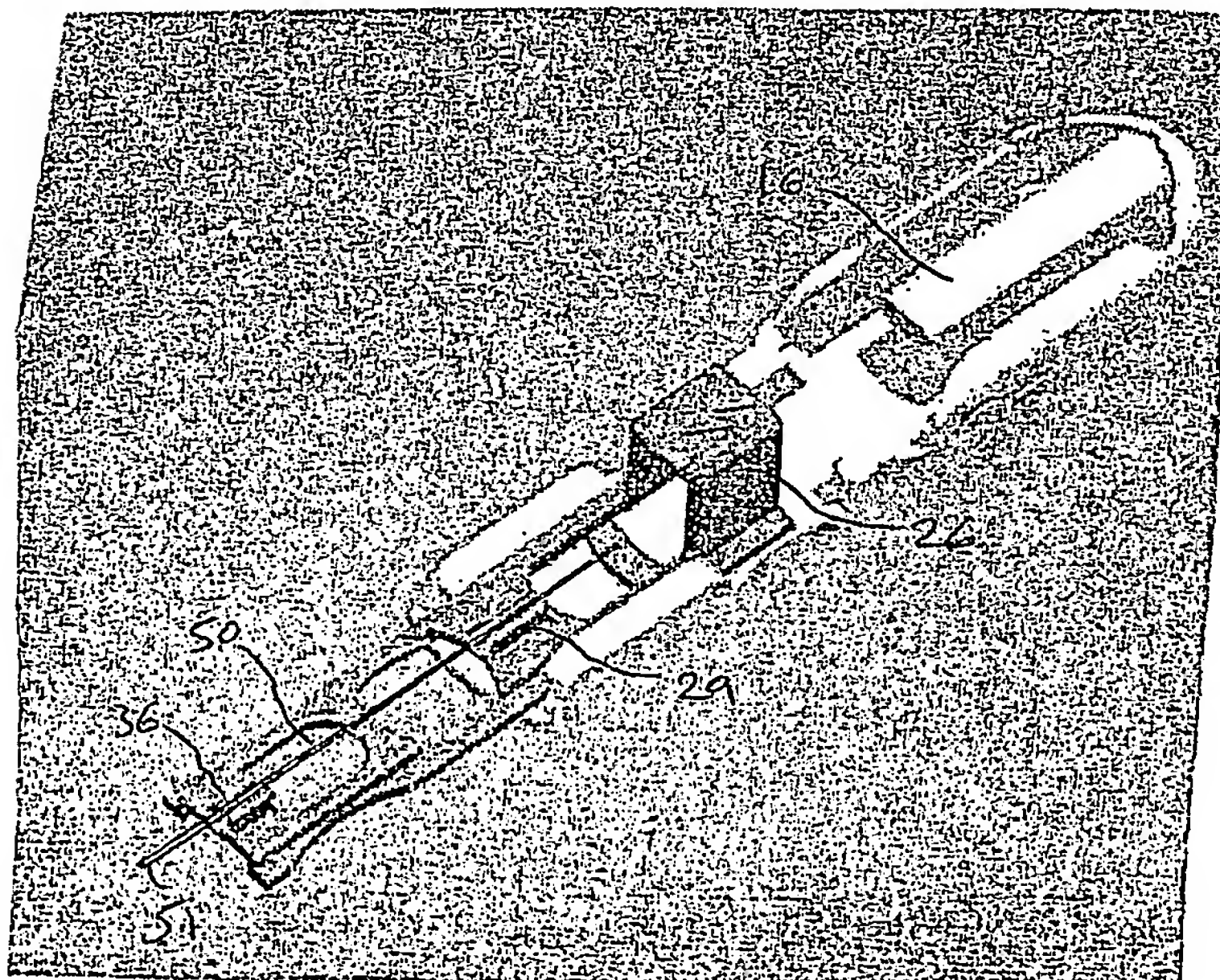


FIG. 9

From the INTERNATIONAL BUREAU

PCTNOTIFICATION CONCERNING
SUBMISSION OR TRANSMITTAL
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

Date of mailing (day/month/year) 13 July 2005 (13.07.2005)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 0400171	
International application No. PCT/GB2005/001757	
International publication date (day/month/year)	
Applicant SMITHS GROUP PLC et al	International filing date (day/month/year) 09 May 2005 (09.05.2005)
	Priority date (day/month/year) 15 May 2004 (15.05.2004)

1. By means of this Form, which replaces any previously issued notification concerning submission or transmittal of priority documents, the applicant is hereby notified of the date of receipt by the International Bureau of the priority document(s) relating to all earlier application(s) whose priority is claimed. Unless otherwise indicated by the letters "NR", in the right-hand column or by an asterisk appearing next to a date of receipt, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
2. (If applicable) The letters "NR" appearing in the right-hand column denote a priority document which, on the date of mailing of this Form, had not yet been received by the International Bureau under Rule 17.1(a) or (b). Where, under Rule 17.1(a), the priority document must be submitted by the applicant to the receiving Office or the International Bureau, but the applicant fails to submit the priority document within the applicable time limit under that Rule, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
3. (If applicable) An asterisk (*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b) (the priority document was received after the time limit prescribed in Rule 17.1(a) or the request to prepare and transmit the priority document was submitted to the receiving Office after the applicable time limit under Rule 17.1(b)). Even though the priority document was not furnished in compliance with Rule 17.1(a) or (b), the International Bureau will nevertheless transmit a copy of the document to the designated Offices, for their consideration. In case such a copy is not accepted by the designated Office as the priority document, Rule 17.1(c) provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

<u>Priority date</u>	<u>Priority application No.</u>	<u>Country or regional Office or PCT receiving Office</u>	<u>Date of receipt of priority document</u>
15 May 2004 (15.05.2004)	0410923.7	GB	13 June 2005 (13.06.2005)

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